

The MicroScan MS300 Counter Measure Receiver is a compact, easy to use single piece of equipment, supplied in a rugged carrying case which contains the unit itself, antennas and notebook PC.

The MS300 offers extensive coverage from 10kHz to 15GHz, sophisticated algorithms, advanced DSP capabilities, and special software enable very fast sweeps to be undertaken across the entire frequency spectrum for the detection of covert transmitters.

The spectrum analyzer display allows the receiver output to be displayed in the manner of a conventional spectrum analyzer. Additionally, the spectrum analyzer display adds other information helpful to the user.

A carrier search can be compared with a previously saved search to eliminate 'friendly signals', such as local broadcast radio stations.

MS300 Display Lists:

- Frequency
- Bandwidth
- Peak Power
- Total Power
- Date / Time First Seen
- Date / Time Last Seen
- Automatically Identifies Pulsed Transmissions and lists pulse duration in microseconds
- Automatically Identifies FM and AM Video Transmissions
- Automatically marks new signals in Red
- User can manually add Notes to signal

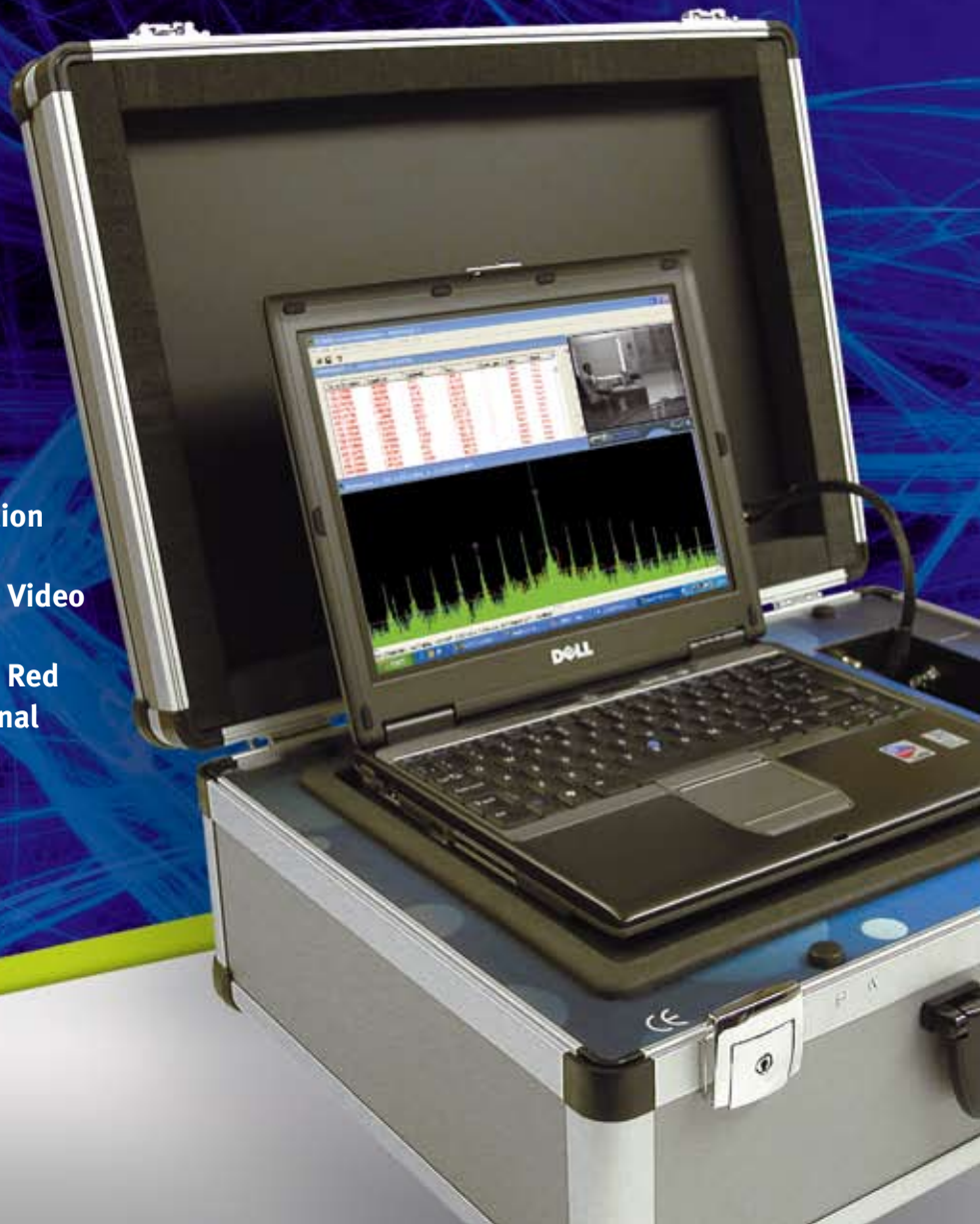
Nato Stock No.

(3GHz Version)
5865-99-708-6828

Detect all major types of covert radio surveillance threat

DATA SHEET

MICROSCAN MS300 COUNTER SURVEILLANCE RECEIVER



The MS300 features a continuous monitoring mode which allows the system to run 24 hours a day looking for new signals. The MS300 can be viewed and controlled remotely by means of internet link, video signals can be viewed remotely, and you can listen to audio signals.

Excellent detection of Frequency-Hopping and Spread Spectrum devices.

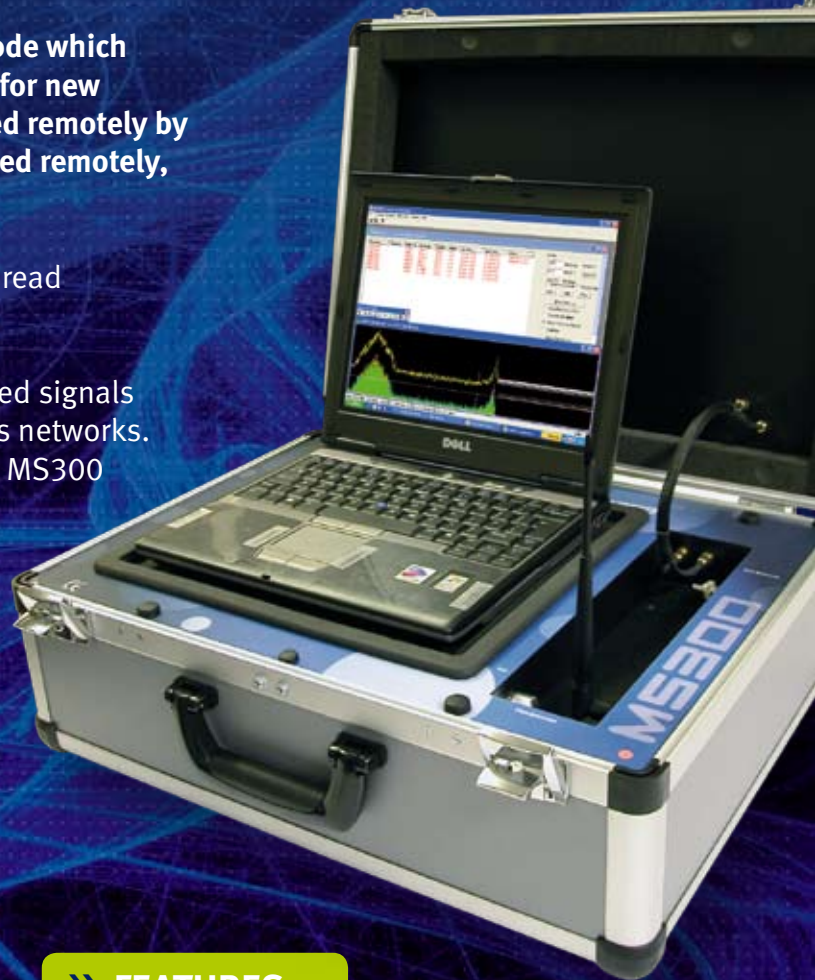
The MS300 allows accurate identification of pulsed signals such as GSM, Bluetooth and IEEE 802.11 wireless networks. The MS300 MDC is internal and uses the existing MS300 antenna's, this has some big advantages.

» APPLICATIONS

- **MOD Buildings**
 - Monitor all new incoming/outgoing signals
- **Banking Facilities**
 - Protection against the use of illicit transmitters for fraud
- **Call Centres**
 - Protection against theft of credit card details using of illicit transmitters
- **Embassies**
 - Protection against espionage
- **Police/Drug Enforcement Agencies**
 - Protection against Organised Crime Syndicates monitoring Ops rooms
- **Other applications**
 - State Security, Presidential Security, VIP Protection, Prisons, IP Theft ...

» FEATURES

- Several rooms can be swept in one run with the MS300 and the time taken to run a sweep is very low.
- Dedicated Video Search Mode
- MS300 sensitivity is stable as the frequency goes up
- MS300 software easily upgradeable via CD-ROM
- MS300 displays analogue video signals on the laptop
- E-mail alert facility on detecting a new Signal
- Spectrum Analyser 'Snap-Shot' of Signals can be attached to e-mail, even if signal is very brief
- Allows 24 hour protection against 'Burst-Mode' and Remote Control Transmitters
- MS300 can be viewed and controlled remotely by Means of Internet Link
 - View Video Signals Remotely over internet Link
 - Listen to Audio Signals Remotely over Internet Link



» TECHNICAL SPECIFICATIONS

Due to continuous improvement of product, all specifications are subject to change without notice.

■ Receiver

Frequency Range	10kHz - 3GHz (min. accepted frequency input 5kHz) 10kHz - 9GHz (w. integral MDC) 10kHz - 15GHz (w. integral MDC)
Tuning Resolution	1Hz
IF Bandwidth	500Hz, 3kHz, 6kHz, 15kHz 40kHz, 110kHz, 220kHz
Attenuators	10dB, 20dB

■ Sensitivity

Receive Frequency	10dB S/N AM 6kHz	12dB SINAD SSB/CW	12dB SINAD FM 15kHz	12dB SINAD FM 220kHz
10kHz – 40kHz	63 μ V	22.3 μ V		
40kHz – 100kHz	4.46 μ V	1.58 μ V		
100kHz – 2MHz	2.23 μ V	0.71 μ V		
2MHz-40MHz	1.58 μ V	0.71 μ V	0.89 μ V	2.81 μ V
40MHz – 1000MHz	0.89 μ V	0.4 μ V	0.5 μ V	1.58 μ V
1GHz – 3GHz	0.71 μ V	0.32 μ V	0.4 μ V	1.25 μ V

■ Data Acquisition

Bandwidth	up to 10MHz, depending on tune frequency
Sampling Rate	64MHz
Downconverter	1, 2, 4, 8, 16, 32
Decimation Rates	
Frequency Resolution	7.6Hz
Spurious-free	80dB
Dynamic Range	

■ Specifications

Operating Voltage	100-240V, 50/60Hz
Max. operating Current	1A
Operating Temperature	-5° C to +50° C
Humidity	95% RH

Antennae

10kHz – 150MHz	Active Loop Antenna
150MHz – 15GHz	Planar Spiral antenna
Mains Coupler	10kHz – 5MHz
External antenna input	N-type

■ **PC Interface** USB 2.0 High Speed 480Mbps

■ **Scan Time (PC Dependent)** 0-3GHz 90 seconds

■ Operating System

The MS300 is compatible with Microsoft Windows XP. The MS300 can not be used with systems running Windows Vista.

■ **EMC Standards Applied** ETS 300 339, EN300-220-1
EN300 220 3, EN301-489-9
EN60950

■ **Weight** 12Kg

■ **Dimensions** 508mm x 376mm x 213mm

■ **Tariff Number** 8527-1900



■ MicroScan MS300 - Full System

3-299-040 MicroScan MS300 - Full System and Accessories to 3GHz with signal processing software, video demodulation, antennas all housed in smart flight case. Accessories in soft combination case. One half of soft carry-case for tone boxes (2), tone box antennas, power supply, USB cable, probe antenna with 10m RG58 cable, audio headphone adapter & cable, power cable 1.5m, quick reference card, user manual and other half for Laptop PC (Does not include laptop PC).

3-299-041 MicroScan MS300 - Full System and Accessories to 3GHz with signal processing software **preloaded on a Notebook PC** (Dell Latitude E4200), video demodulation, antennas all housed in smart flight case. Accessories in soft combination case. One half of soft carry-case for tone boxes (2), tone box antennas, power supply, USB cable, probe antenna with 10m RG58 cable, audio headphone adapter & cable, power cable 1.5m, quick reference card, user manual and other half for Laptop PC.

3-299-042 MicroScan MS300 - Full System and Accessories to 9GHz with integral MDC (Microwave Down Converter), signal processing software, video demodulation, antennas all housed in smart flight case. Accessories in soft combination case. One half of soft carry-case for tone boxes (2), tone box antennas, power supply, USB cable, probe antenna with 10m RG58 cable, audio headphone adapter & cable, power cable 1.5m, quick reference card, user manual and other half for Laptop PC (Does not include laptop PC).

3-299-043 MicroScan MS300 - Full System and Accessories to 9GHz with integral MDC (Microwave Down Converter), signal processing software **preloaded on a Notebook PC** (Dell Latitude E4200), video demodulation, antennas all housed in smart flight case. Accessories in soft combination case. One half of soft carry-case for tone boxes (2), tone box antennas, power supply, USB cable, probe antenna with 10m RG58 cable, audio headphone adapter & cable, power cable 1.5m, quick reference card, user manual and other half for Laptop PC.

3-299-044 MicroScan MS300 - Full System and Accessories to 15GHz with integral MDC (Microwave Down Converter), signal processing software, video demodulation, antennas all housed in smart flight case. Accessories in soft combination case. One half of soft carry-case for tone boxes (2), tone box antennas, power supply, USB cable, probe antenna with 10m RG58 cable, audio headphone adapter & cable, power cable 1.5m, quick reference card, user manual and other half for Laptop PC (Does not include laptop PC).

3-299-045 MicroScan MS300 - Full System and Accessories to 15GHz with integral MDC (Microwave Down Converter), signal processing software **preloaded on a Notebook PC** (Dell Latitude E4200), video demodulation, antennas all housed in smart flight case. Accessories in soft combination case. One half of soft carry-case for tone boxes (2), tone box antennas, power supply, USB cable, probe antenna with 10m RG58 cable, audio headphone adapter & cable, power cable 1.5m, quick reference card, user manual and other half for Laptop PC.

■ MicroScan MS300 - Accessories, Components & Upgrades

3-299-049 PSU-300 Battery-Backed power supply designed specifically for use with the MicroScan MS300, Operation 90 minutes, Charge time 2Hrs.

3-299-048 Tone Box with antennae

3-299-052 USB Cable - 2Meters

3-299-053 Probe Antenna

3-299-054 Probe Antenna RG58 cable 10 Meters with BNC connectors

3-299-055 Probe Antenna RG58 cable 20 Meters with BNC connectors

3-299-995 GSM196 Cellular Detector can detect both 2G (GSM900/1800) and 3G (WCDMA / UMTS 2100) with cadenced vibration alert & latched alarm

3-299-046 MDC 3GHz to 9GHz - Upgrades older units with MDC

3-299-047 MDC 3GHz to 15GHz - Upgrades older units with MDC

■ Warranty

Microscan MS300 comes with a return-to-base warranty against defective materials and workmanship for a period of 2 years from delivery.

■ After Sales Support

Technical Support business hours
(Greenwich Mean Time)
Monday – Friday 8.30am – 5.30pm
technicalsupport@winkelmann.co.uk

■ Training

Winkelmann and its Partners are able to offer full training in the operation of products together with general countermeasures training and seminars. (Contact us about basic & advanced TSCM courses)



■ Contact Details

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